MASTRO®

Service

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Dear Client & User,

Firstly, thanks for purchasing and using our product. All the information and guidelines of this user's manual comply with certain applicable regulations, which come out from our long-term accumulated knowledge and experience as well as current project development situations.

Limited to some special structures, additional specified items or new technology changes, the actual usage situation might be some different from what stated in this user's manual. Should you have any question, please do not hesitate to contact the manufacturer via the method shown in back cover page of this manual.

For safety purpose and efficient operation, please make this document available to users for reference. Do have them to read this manual carefully before carry out any action on this device, especially when starting.

The manufacturer declines any responsibility in the event users do not follow the instructions or guidelines stated here.

The user's manual should be placed close to the device, in convenience of users' reading before operation. We have the full authority to reserve the further technical changes of the device, in the scope of further performance improvement characteristic development.

Warning

- Any self-modification, wrong installation, adjustment or maintenance can lead to property loss or casualty. Please contact the manufacturer for any adjustment or maintenance, and have the work done by a trained & qualified person.
- For your safety sake, please keep the machine away from any liquid, gas or other object, which is flammable or explosive.
- The device should NOT be operated by those who have physiological, perceptual or psychological barrier or disability, as well as those who are lack of necessary knowledge or experience to use, including children. Only in conditions of being given sufficient supervise & guarantee of personal safety, as well as proper instructions & guidance, those who were mentioned above can make some particular operation of this device.
- Keep children away from the device.
- Preserve this manual safely. When passing on/selling the device to a third party, the manuals must be handed over along with the device. All users must operate the device complying with the user's manual and related safety guidelines.
- If this appliance is placed near walls, partitions or kitchen furniture and the like, it is advisable to make these facilities with non-combustible material, otherwise cover them with non-combustible heat-resistant material, and pay attention to fire prevention regulations.
- The appliance should be installed in a well-ventilated area, if possible under a vent hood, in compliance with all applicable regulations in force. This will ensure that all burnt gases produced during the combustion process are completely exhausted.
- The appliance is only applicable to low-pressure gas control valve. It may lead to loss and casualty if you use other regulating valves.
- Dry fry is not allowed!
- Fire warning: If you smell the gas, please keep away from fire. Do not light up any device or touch the electronic switch. Do not use any phone in the building either. Close the main gas valve immediately and call the professional personnel to maintain it. Operate by force or maintain improperly will lead to large gas leakage or deflagration easily. The manufacturer won't bear any responsibility for fire accidents caused by improper operation or maintenance.

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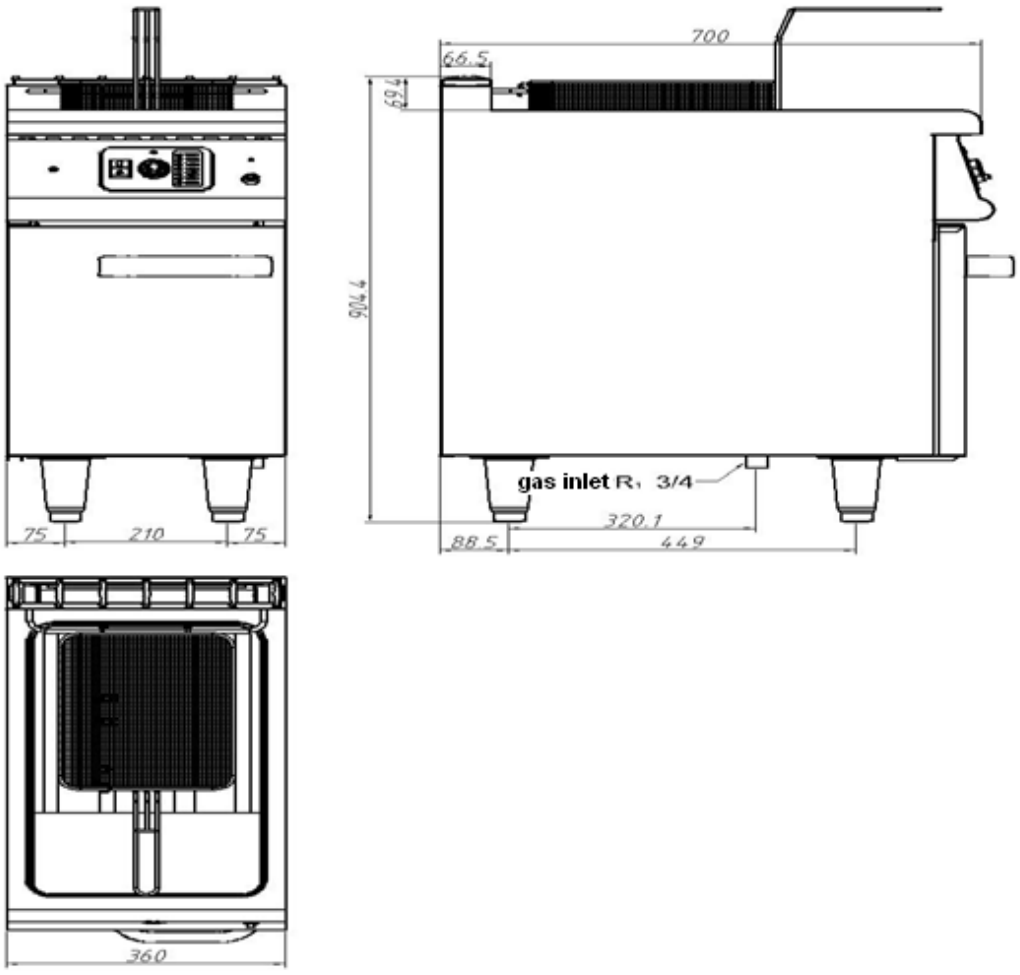
1. Functional Introduction

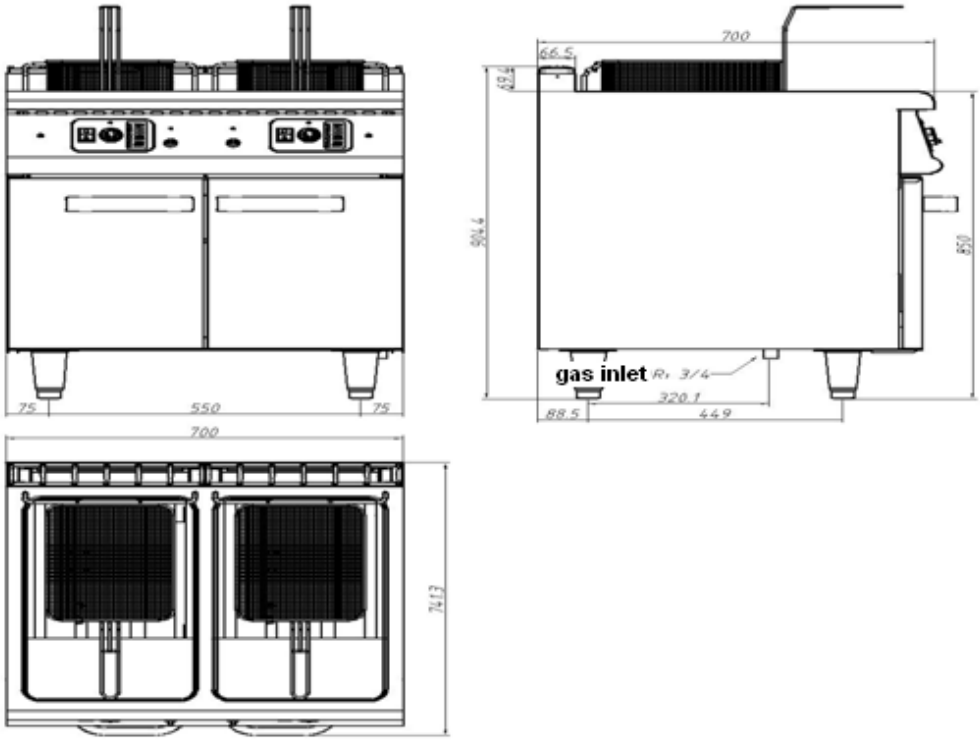
This product is manufactured by our company, which is combined with advantages from home and abroad. It is novel in design, reasonable in structure, easy in operation, durable in using, convenient in maintenance. Therefore, it is the ideal equipment for hotel, supermarket, western restaurant, fast food restaurant and food industry.

2. Structure Schematic Diagram

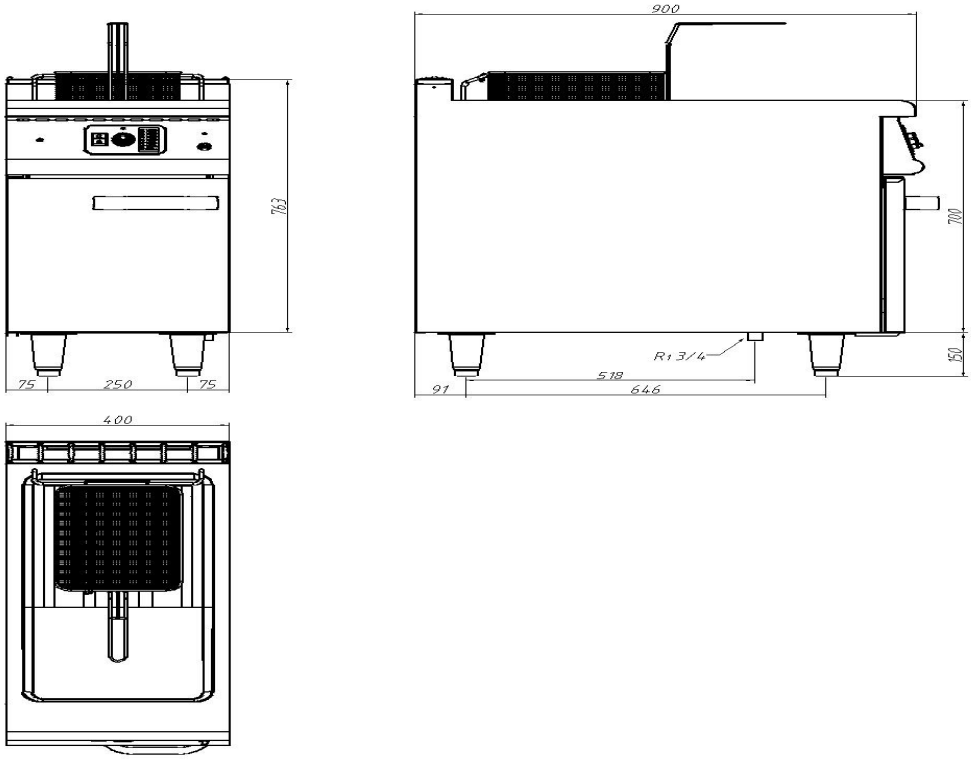
F47GT



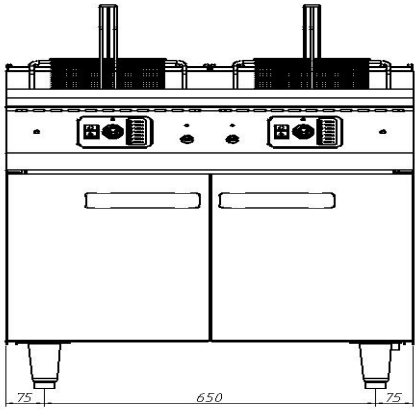
F77GT

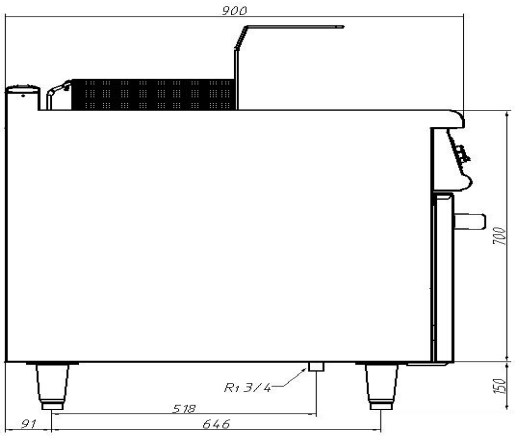

700
66.5
62.4
904.4
850
gas inlet R1 3/4
320.1
88.5
449
75
550
75
700
741.7

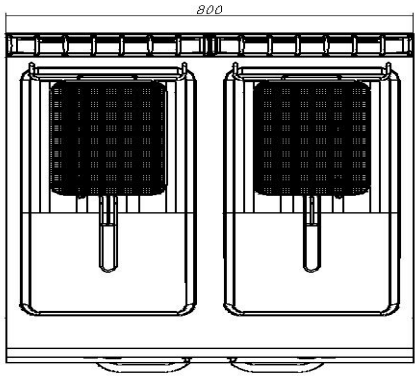
F49G


900
763
700
150
R1 3/4
519
91
646
75
250
75
400

F89G







3. Basic Features & Parameters

Model		F47GT	F77GT	F49G	F89G
Size（mm）		400×700×850	700×700×850	400×900×850	800×900×850
Thermal Power（kW）		15.5	15.5×2	15.5	15.5×2
Power（kW）	LPG	15.5	15.5×2	15.5	15.5×2
	NG	15.5	15.5×2	15.5	15.5×2
	Town Gas				
Gas Consumption	LPG	1.23kg/h	1.23kg/h×2	1.23kg/h	1.23kg/h×2
	NG	1.56M³/h	1.56M³/h×2	1.56M³/h	1.56M³/h×2
	Town Gas				
Capacity (L)		17±	（17±2）+（17±2）	20±	（20±2）+（20±2）
Basket Number		1	2	1	2

Nozzle list:

Gas Type	Nozzle Diameter
NG 2000（Pa）	φ1.8
LPG 2800（Pa）	φ1.15
Town Gas 1000（Pa）	φ4.0

Notice：While replacing the nozzle, please comply with the regulation above. If you use any other gas type differs from those in the list, please contact the manufacturer or the supplier directly. Replacement should be done by professional personnel.

4. Precautions & Recommendations

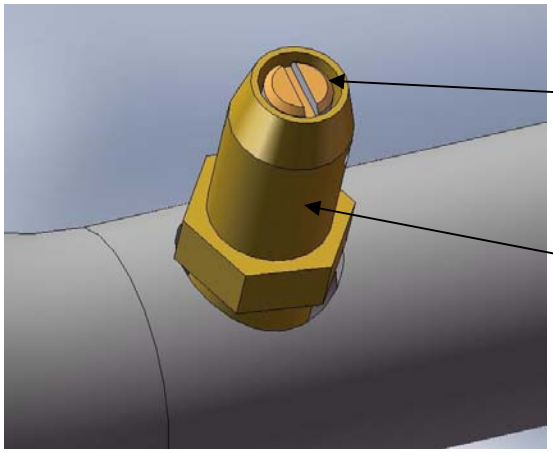
4.1 Transportation and Storage

During transportation, the machine should be carefully handled and do not put it upside down to prevent from damaging to the shell and inside. The packaged machine should be stored in a ventilated warehouse without corrosive gas. If it needs to be stored in open air temporarily, measurement against raining is needed.

4.2 Notice for Installment

1. The installation should be operated by professional technician.
2. The appliance should be connected in accordance with all applicable regulations and standards in force.
3. The appliance should be installed separately or assembled with other device in stated range.
4. The appliance is not suitable for built-in installation.
5. The appliance should be kept a minimum clearance of 10cm away from the incombustible object on both sides and 20cm at the back(such as walls, windows and so on).Do not install it on the flammable floor or other combustible objects.
6. Consider the weight of the appliance, please install on the floor or countertop.
7. The appliance should be installed in a well-ventilated area, if possible under a vent hood, in compliance with all applicable regulations in force. This will ensure that all burnt gases produced during the combustion process are completely exhausted.
8. After installation, please place horizontally and keep firm. Do not sway when you are using.
9. Before installation, please remove the outer film。
10. Do not use gas which is not required as fuel. Neither do high pressure nor Medium pressure regulating valves. (The appliance is only applicable to low pressure gas regulating valve.)
11. A quick gas-shutting valve which should be installed above the appliance and easy to reach is needed before installation.
12. Make sure the applicable gas is the same as the gas supply. If not, please stop using.
13. Please use metal pipe to connect the appliance.
14. If the gas pipe pressure is higher or lower than the rated pressure at 10%, please install a pressure regulator to adjust the gas pressure.
15. After connecting the appliance to the gas system, check for leaks at joints and pipe fittings; to do so, use soapy water or a specific leak detector (spray).“No flaming!”
16. Check the gas supply pressure after installation.
17. Gas supply pressure can be measured with a liquid-filled pressure gauge (for example, a U-shaped pressure gauge, minimum scale division 0.1 mbar) or a digital gauge. Procedure as follows:
    - Remove the panel, unscrew the screw on the pressure port (picture 2);

- Place the pressure gauge;
- Start up the appliance by following the instructions in the user's manual;
- Check supply pressure;
- After the check, remove the pressure gauge;
- Replace the sealing screw.



Picture 2

4.3 Special Notice

1. The appliance is a commercial machine which needs to be operated by professional personnel or qualified person. Not applicable for home use.
2. Please keep the integrity of the appliance and remove the outer wrapping. If you have any questions, call the specialist and stop using the appliance. In case of danger, keep the wrapping materials away from children. (For the materials are plastic bags, nails and so on.)
3. When first using, the duration of ignition is a little longer because of the air in the new pipe. If the ignition cannot be light up, turn off the Ignition switch and turn it on 3 minutes later to prevent from deflagration.
4. In case of potential danger, the power should be turned off when finishing work.
5. The product is only for commercial use.
6. The appliance is only designed for edible oil or high-melting fat fry food.
7. Do not sway or tilt when using. Dismantlement or self-modification is not allowed.
8. Dismantlement or self-modification will cause casualty.
9. Do not pat the product and put heavy object onto the product. Neither does placing any object in the smoke vent.
10. Abnormal operation may cause damage and danger
11. High temperature may cause scald.
12. Do not touch the appliance directly with hands due to high temperature during or after the operation.
13. Do not destroy the control panel with hard or sharp objects.

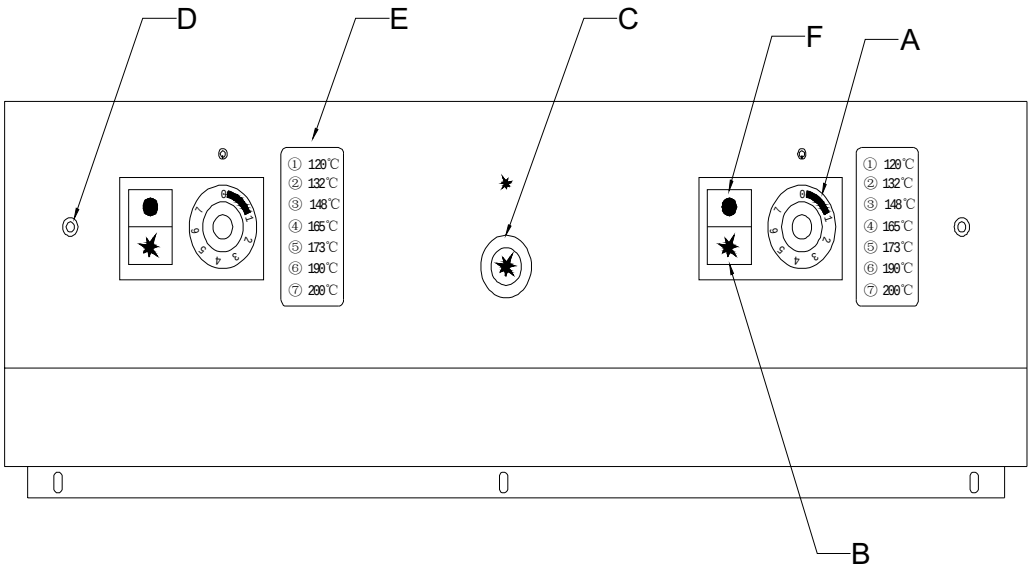
14. Do not spray water directly to the product when cleaning.
15. To prevent from surface oxidation and chemism, please clean the stainless-steel surface regularly.
16. Satisfactory performance is guaranteed. To save energy, please avoid using the appliance under circumstance of finishing working or bad performance.

5. Working Instructions & Operation Flow

1. If the fuel tank is empty, please stop using.
2. The edible oil or fat used for fry should be renewed regularly. The reusable edible oil will produce impurity, lower the inflammation point and increase the possibility of sudden boiling.
3. If a large amount of food cannot absorb the oil, the hot oil may splash
4. If the oil burning, please turn the gas switch off and cover the lid.

5.1 control panel：

A temperature control knob　　B ignition switch　　C igniter
D temperature limiter　　E temperature control list　　F flameout switch



5.2 Ignition:

- Special notes：The ignition time may be a little longer for the first time because of the air existing in the new pipe.
- Turn the temperature control knob A to zero position.
- Press the ignition switch B.（Hold it there）
- Press igniter C (It will light automatically if it is a pulse igniter.) until the flame is lit up. Hold the switch B for more than 20 seconds.
- Release the switch B. (If flameout, please repeat the steps above.)
- Turn the temperature control knob A to the temperature required according to the temperature list.

5.3 Temperature control:

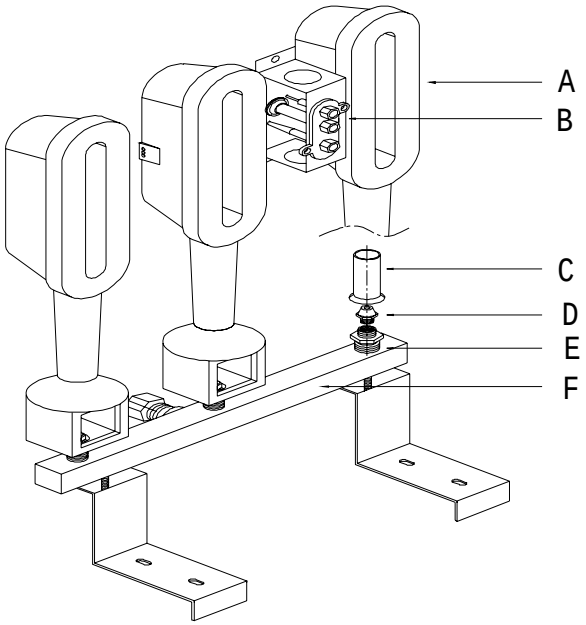
- The main flame and gas supply will be turned off automatically and the temperature will keep constant when it rises to the appointed one.
- When the temperature drops to -10℃, the main combustor will begin flaming automatically and adjusting the temperature.
- The appliance will repeat the work above automatically.

5.4 Flameout:

- Press the flameout switch F to cut the combustion source.
- Turn the main gas supply off.
- Special notes: If you need to start the machine again after flameout, you should turn the switch F off and ignite 1min later.

5.5 Replacing the nozzle:(see chart below)

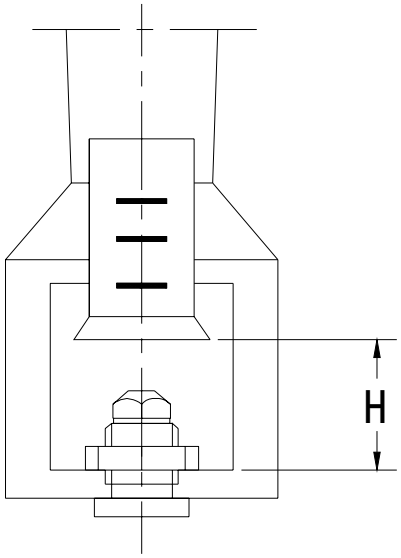
- All the operation should be done by profession people.
- Discharge the nozzle of pilot flame B.
- Discharge nozzle D.
- Replace the nozzles of the main combustor and the pilot with those that match with the gas.
- Screw the nozzle; attach a new label with the new gas type written in it.



A combustor
B pilot flame
C blast volume regulator
D nozzle
E nozzle retainer
F isocon

5.6 Adjust the wind Inlet volume:（see chart below）

- In principle, the damper is the max. Adjustment should be made if the flame is unstable or combustion is incomplete by professional technician.



6. Routine Inspection

It is necessary to check the machine daily.
Check the machine regularly can avoid serious accident happens.
Stop using if user feels that there are some problems in the circuit or machine.
Check the situation of the machine before or after using every day.

Before using: Whether the machine is tilted?
Whether the control panel is damaged?

During using: Whether there is strange smell or vibration noise?
Whether the flame of the combustor is normal? Any light back or flameout?
Whether the power is normal?

7. Cleaning and Maintenance

1. Clean all the commercial grease before using as follows:
   - Add water and detergent into the tank and boil a few minutes, clean the grease with towel when the water temperature rises to 40 to 50 Celsius degree.
   - Do not clean the tank with abrasive detergent or scrape it with wire brush or anything sharp that may damage the tank.
   - Drain the dirty water from the tap after cleaning and clean the tank with clear water.
2. Do not clean it with spraying water directly or caustic material (acid, alkali).
3. Put the high-melting grease into the tank separately after melting when using.
4. Food debris should be cleaned up promptly every day.
5. Clean the tank or drain the used oil off should be done when the oil temperature drops to normal.
6. Oil should be added when it is under the lowest oil level permitted.
7. Do not change the wind inlet volume required.
8. Turn the gas supply off when disusing.
9. If not going to use the appliance for a long time, please turn off the gas supply. Clean the surface with a gasoline cloth and store it in a well-ventilated warehouse with no corrosive gas.
10. General inspection should be made at least once a year by professional personnel.
11. 90% of the appliance are metals (stainless steel、Iron、Aluminum、galvanized metal sheet) which can be recycled by appointed treatment plant according to the environmental standards of the equipment installation countries. (No Littering!)

8. Failure Analysis &Trouble Shooting

Troubles	Causes
The pilot flame cannot be ignited.	1. The pulse igniter doesn't work. 2. The plug gets off or the ceramic needle of the pilot damages. 3. The pressure in the gas pipe is not enough. 4. The nozzle is block. 5. The thermocouple is wrongly connected or the temperature limiter is disconnected. 6. The thermocouple is damaged while heating. 7. Gas temperature control valve is defective.
The pilot flame is on but the main burner cannot be ignited.	1. The pressure in the gas pipe is not enough. 2. The nozzle is block. 3. The switch is defective. 4. The temperature controller is defective or disconnected. 5. The thermocouple and the valve are bad contact. 6. The thermocouple is defective.

Aforementioned troubles are just for reference. If any failure occurs, please stop using, and inform the professional technicians to check and repair. Safety is first and maintenance should be done after shut down power supply and gas supply.